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ABSTRACT

This report identifies key issues for providing early childhood special education services to young children who are visually impaired and for working with families of culturally and linguistically diverse backgrounds. First, it discusses the incidence of visual impairment and associated disabilities among young children, the process of early identification, and various definitions related to visual impairment. Second, it reviews relevant literature of the effects of visual impairment and associated disabilities on early development. Third, it outlines current intervention practices in relationship to the Division of Early Childhood Recommended Practices (1993). Fourth, it presents implications for serving infants, toddlers, and preschoolers with visual impairments, those with associated disabilities, and their families. The report includes extensive references, an annotated bibliography, and a list of available resources from the CLAS Web site. (Author/SG)

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Deborah Chen

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May 2001

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Culturally & Linguistically Appropriate Services
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When infants and young children are visually impaired, their access to information is restricted, and they are at risk for developmental delays and other learning difficulties. Further, many young children with visual impairments have additional disabilities that influence their learning and development. When a visual impairment occurs with hearing loss, access to information is even more restricted. This report identifies key issues in providing early childhood special education services to young children who are visually impaired, and for working with families of culturally and linguistically diverse backgrounds. First, it discusses the incidence of visual impairment and associated disabilities among young children, the process of early identification, and various definitions related to visual impairment. Second, it reviews relevant literature on the effects of visual impairment and associated disabilities on early development. Third, it outlines current intervention practices in relationship to the Division of Early Childhood Recommended Practices (1993). Fourth, it presents implications for serving infants, toddlers, and preschoolers with visual impairments, those with associated disabilities, and their families.

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Introduction

Vision and hearing are our primary senses for learning about our world and for interacting with others. When infants and young children are visually impaired, their access to information is restricted, and they are at risk for developmental delays and other learning difficulties. Furthermore, many young children with visual impairments have additional disabilities that influence their learning and development. When a visual impairment occurs with hearing loss, access to information is even more restricted. This combination of sensory impairments has an even more profound effect on early development than visual impairment alone.

Given the significance of visual experiences in early learning and development, this paper identifies key issues in providing early childhood special education services to young children who are visually impaired, and for working with families of culturally and linguistically diverse backgrounds. First, it discusses the incidence of visual impairment and associated disabilities among young children, the process of early identification, and various definitions related to visual impairment. Second, it reviews relevant literature related to the effects of visual impairment and associated disabilities on early development. Third, it outlines current intervention practices in relationship to the Division of Early Childhood Recommended Practices (1993). Fourth, it presents implications for serving infants, toddlers, and preschoolers with visual impairments, those with associated disabilities, and their families.

Incidence, Early Identification, and Definitions

Incidence

Visual impairment is a low-incidence disability, occurring in 1.5 per 1000 live births in developed countries (Oxford Radcliffe Hospital, 1995). However, young children with visual impairment are a very heterogeneous group in terms of the type and severity of visual impairment. First, 50% of children with visual impairment have enough vision to use large print, 25% have light perception, and 25% are totally blind (Buncic, 1987). Second, research with young children (birth to five years) who are visually impaired indicates that up to 70% of these children have additional disabilities (Bishop, 1991; Deitz & Ferrell, 1993; Ferrell, 1998; Hatton, Bailey, Burchinal, & Ferrell, 1997).

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INCIDENCE, EARLY IDENTIFICATION, AND DEFINITIONS

Research with young children (birth to five years) who are visually impaired indicates that up to 70% of these children have additional disabilities.

Studies of children with developmental disabilities have found that 48% to 75% of them also have significant visual impairments (Maino, Maino, & Maino, 1990).

These statistics are related to several causes of visual impairment that are associated with other disabilities. First, extremely low birthweight is associated with retinopathy of prematurity, cortical visual impairment, refractive errors and other types of visual impairments (Ferrell, 1998; Glass, 1993; Hoon, 1996); as well as with developmental disabilities, cerebral palsy, hearing loss, and other medical needs (Goldson, 1996). Compared to infants without disabilities, there is a higher incidence of cortical visual impairments, refractive errors, and other visual problems in infants with cerebral palsy, Down syndrome, and other genetic disorders related to developmental disabilities (Capute & Accardo, 1996; Hoon, 1996; Rogers, Roizen & Capone, 1996; Wesson & Maino, 1995). These findings highlight the critical need for infants and young children with disabilities to receive a comprehensive vision evaluation.

Many children who have severe multiple disabilities may also have a visual impairment and hearing loss that are not identified. Thus the number of children who are deaf-blind is likely to be underestimated.

A small number of children who are visually impaired also have a hearing loss. In every 1000 children with disabilities, approximately two of them have both a visual impairment and hearing loss and may be called deaf-blind (Baldwin, 1993). Data on the school-aged population who have both visual impairment and hearing loss (Outlette, 1984) indicate that 6.1% are deaf and blind, 3.4% are deaf with a severe visual impairment, 48% are blind and have a severe hearing loss, and 42.4% have a severe hearing loss and severe visual impairment. These statistics indicate that almost 94% of the population identified as deaf-blind have some functional vision or hearing and over 50% have additional disabilities (Baldwin, 1994). More recent data in the 1990s (Baldwin, 1997; Edwards, Goehl, & Gordon, 1994) also indicate that a majority of the deaf-blind population (birth to 21 years) have some usable vision or hearing and additional disabilities.

The heterogeneity of the population who are "deaf-blind" has resulted in a variety of definitions across the country, so a child may be identified as "deaf-blind" in one state and "multidisabled" in another (Ward & Zambone, 1992). Some states have certain criteria based on decibel loss or acuity level for hearing and visual impairments. The broad definition of "deaf-blind" is not commonly recognized by service providers and educational systems. Many children who have severe multiple disabilities may also have a visual impairment and hearing loss that are not identified. Thus the number of children

who are deaf-blind is likely to be underestimated (Davidson, 1993). The 1997 Deaf-Blind Census reports 11,048 students (birth through 21 years) as deaf-blind and indicates an annual increase in the federally-mandated count (Baldwin, 1997). However, it is highly likely that these data underestimate the numbers of infants and preschoolers who have both visual impairment and hearing loss because of factors influencing early identification practices.

Early Identification

Screening infants and young children for visual impairment is not common practice despite recommendations of both the American Academy of Ophthalmology (1992) and the American Optometric Association (American Optometric Association Consensus Panel on Pediatric Eye and Vision Examinations, 1994) that all infants receive a comprehensive vision evaluation during the first year, and a follow-up before the third birthday. If appropriate medical care is available to the family, then an infant who is born with a significant visual impairment is usually diagnosed before 4 months of age. However, if an infant has additional disabilities then identification of a congenital visual impairment occurs at a later age (Ferrell, 1998). The more obvious disability will be identified first. For example, if an infant is also medically fragile or has a severe physical disability, it is likely that these disabilities will be identified before a refractive error or cortical visual impairment. Similarly, when an infant is visually impaired and has a hearing loss, the visual impairment is usually identified first. A hearing loss is not visible and few states have fully implemented universal hearing screening for infants (Mauk, Barringer, & Mauk, 1995; National Institutes of Health, 1993). In fact, the average age of infants with hearing loss beginning early intervention is between 18 and 30 months (Kramer & Williams, 1993).

Implications for Working with Families

The early identification of visual impairment and associated disabilities in infants and referral to early intervention services depends on whether families (a) have the financial resources to obtain comprehensive medical care, (b) have the persistence or skills to negotiate medical and other systems, and (c) receive appropriate supports from social service or early intervention agencies. Therefore, families who do not speak English, who are unfamiliar with the medical system in their communities, or who do not seek medical care, are unlikely to have their infants' visual impairment or hearing loss identified early. Once these infants are identified as having a sensory impairment, whether they have other disabilities or not, these families may require assistance in accessing early intervention services.

Families who do not speak English, who are unfamiliar with the medical system in their communities, or who do not seek medical care, are unlikely to have their infants' visual impairment or hearing loss identified early.

INCIDENCE, EARLY IDENTIFICATION, AND DEFINITIONS

Definitions

A number of terms are used to describe vision loss, and their definitions should be familiar to individuals who are visually impaired, families, and service providers.

Visual impairment is an inclusive term that covers a range of vision loss that will influence the child's ability to participate in everyday activities. *Legally blind* is a federal definition that is used for eligibility to receive services; and is defined as vision in the better eye as 20/200 or less even with correction, or that the visual field is no greater than 20 degrees. This means that the child can see at 20 feet what a peer with normal vision can see at 200 feet; or that the child who is legally blind can see a restricted area straight ahead due to greatly reduced areas of peripheral vision.

The different meanings of terms related to visual impairment are particularly confusing.

Low vision implies that the child is severely visually impaired with correction, but with appropriate supports, has the potential for using available vision for everyday activities. *Totally blind* is defined as having no vision at all. *Functionally blind* refers to having light perception without the ability to identify the source of light or to discriminate shapes. A child with *low vision* has sufficient vision to make visual discriminations but also has a visual impairment that interferes with the usual ways of participating in everyday activities (Bailey & Hall, 1990).

When a child who is visually impaired also has a hearing loss, the term *deaf-blind* is used to indicate impairments in the two major avenues for learning–vision and hearing. However, children who are called deaf-blind include those with a range of sensory impairments and other disabilities. Some of these children have mild-to-profound visual impairments and hearing losses, some have cortical visual impairments and/or central auditory processing disorders, some are hard of hearing and blind, others are low vision and deaf, some are totally blind and have a profound hearing loss, some are hard of hearing and low vision, and some have medical needs, severe developmental delays and other physical disabilities (Baldwin, 1993; Chen, 1993; Chen & Haney, 1995; Michael & Paul, 1991; Miller & Peck, 1995; Ward & Zambone, 1992).

Implications for Working with Families

Most families need an explanation of terminology related to any diagnosis that their children receive. However, the different meanings of terms related to visual impairment are particularly confusing. Physicians may use the term *blind* to cover a range of vision loss – from *legally blind* to *totally blind*. When a family first hears that their child is *blind*, they usually interpret this diagnosis as meaning that their child cannot see. However, they will wonder about the diagnosis if the child demonstrates some visual abilities. Similarly, if the term *deaf-blind* is used for a child who

is just diagnosed with a visual impairment and hearing loss, the family and service providers may question this diagnosis if the child demonstrates some response to auditory or visual stimuli (Chen, 1998). Furthermore, diagnostic information may be even more difficult for families to understand when interpreters are needed to translate this information.

Service providers working with young children with disabilities (other than visual impairment) also need to be familiar with definitions related to visual impairment to assist in referring high-risk children for medical and related services. An increased understanding of related terms, such as, *legally blind* (includes a wide range of visual impairments) and *deaf-blind* (includes a variety of problems in both vision and hearing), will promote both (a) early identification of these infants and young children and (b) the provision of appropriate early childhood special education services.

Diagnostic information may be even more difficult for families to understand when interpreters are needed to translate this information.

Influence of Visual Impairment on Early Development

The literature reveals that a severe visual impairment will influence all areas of early development; however, it is accompanying disabilities that will have the most significant developmental consequences (Ferrell, 1998; Hatton et al., 1997). First, an absence of mutual gaze or eye contact affects the quality of caregiver interactions with these young children. Mothers of infants with visual impairments have been observed to spend less time looking at their infants compared to mothers of babies who are sighted (Rogers & Puchalski, 1984). Studies report that infants with visual impairments (those with and without additional disabilities) demonstrate few signaling behaviors or ways to elicit and maintain interactions with caregivers (Baird, Mayfield, & Baker, 1997; Rogers & Puchalski, 1984; Urwin, 1984). Mothers of infants who are blind without other disabilities have difficulty interpreting their infants' communicative intent, establishing joint attention, and expanding on a mutual topic (Kekelis & Anderson, 1984). Parents seek ways to maintain contact with their infants; for example, one study found that mothers of infants who are blind responded to

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their infants' vocalizations by imitating their sounds or by touching them. In this study, these infants were more likely to smile and less likely to vocalize in response to their mothers' vocalizations (Rowland, 1984). Another study also found that parents of infants with visual impairment used familiar game routines to engage their infants in interaction and tried frequently to elicit their infants' imitation of sounds or words (Chen, 1996).

Studies report that infants who are blind (without other disabilities) demonstrate object permanence, fine motor and object manipulation skills, and independent movement and locomotion at a later age than sighted peers.

The adaptive responses of caregivers may have developmental consequences for these infants. A study of 18 toddlers with visual impairment without other disabilities (Dote-Kwan, 1995; Dote-Kwan & Hughes, 1994) reported that maternal responsiveness to child initiations was positively related to the child's development. These mothers paraphrased or repeated the child's communication 75% of the time. Responsiveness included responding to the child's requests, repeating or rephrasing the child's communication, expanding the child's utterance, and providing pacing to encourage turntaking. Mothers of children who had less language used more cues to get their child's attention (saying the child's name more than eight times during an hour observation) than mothers of children with more language. These home environments were generally favorable independent of the severity of the child's visual impairment or family's socio-economic level. These researchers suggest that participation in early intervention may support the family's ability to adapt the home environment to meet the child's learning needs.

In contrast, Rock, Head, Bradley, Whiteside and Brisby (1994) found that although young children who demonstrated higher levels of development received higher levels of language and academic stimulation, their families were more likely to restrict their children's activities (related to free access to the environment) than families of young children with lower developmental skills. This finding may be related to families' concerns for safety. These researchers used a modified version of the HOME (Caldwell & Bradley, 1984) with 31 young children with visual impairments (ages 6 months to 6 years). Twelve of these children were visually impaired without other disabilities and 19 of them had additional disabilities.

Second, severe visual impairment also affects the development of early cognitive and motor skills. Studies report that infants who are blind (without other disabilities) demonstrate object permanence (Bigelow, 1986; Rogers & Puchalski, 1988), fine motor and object manipulation skills (Ferrell, et al., 1990; Rogow, 1986), and independent movement and locomotion (Bigelow, 1992; Fraiberg, 1977; Sonksen, Levitt, & Kitsinger, 1984) at a later age than sighted peers. However, there is a wide

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range of individual variation among young children who are visually impaired in the development of these skills (Warren, 1994).

Third, play behaviors of preschoolers who are visually impaired (without other disabilities) differ in quality and quantity from those of sighted children (Parsons, 1986a, 1986b; Recchia, 1997; Rettig, 1994; Schneekloth, 1989; Warren, 1994) and have been the focus of many studies. In Sweden, Priesler and Palmer (1989) found that toddlers who are blind are relatively passive and uninvolved in a nursery school setting. In this country, Parsons (1986) found that preschoolers with visual impairment are more interested in interacting with adults than in playing with toys. Similarly, Schneekloth (1989) reported that preschoolers with visual impairments spend one-third of their time interacting with adults while sighted children spend most of their time interacting with other children. Further, young children who are blind spend approximately twice as much time playing alone compared to children with low vision and four times as much time compared to sighted children. Erwin (1993) also found that young children with visual impairments have difficulty interpreting the nonverbal communication of peers and maintaining interaction. Consequently, these children spend more time playing alone than with peers.

Preschoolers with visual impairments have also been observed to engage in more repetitive behaviors during play and to handle toys in stereotypic ways by waving, mouthing and banging them and to use toys in less typical ways compared to sighted peers (Parsons, 1986b). These stereotypic behaviors may interfere with social interactions with peers (Brambring & Troster, 1992). Another study observed children with visual impairments to engage in more gross motor play and less symbolic or imaginative play (Skellenger, Rosenblum, & Jager, 1997). Similar delays in symbolic play have been reported previously (Fraiberg, 1977; Rogers & Puchalski, 1984). However, Parsons (1986a) suggests that the limited repertoire of play skills in children with visual impairments may be related to lack of opportunities. This suggestion is supported by Olson's (1983) findings that preschoolers (2 to 6 years) with visual impairments demonstrated similar behaviors as sighted children in exploring a variety of toys; there was a positive relationship between types of behaviors and length of school experience.

Play behaviors of preschoolers who are visually impaired (without other disabilities) differ in quality and quantity from those of sighted children.

One study observed children with visual impairments to engage in more gross motor play and less symbolic or imaginative play.

In Germany, Troster and Brambring (1994) interviewed parents of 91 children with visual impairments (4 to 72 months). Findings indicate these children have less interaction with peers, a preference for tactile-auditory games

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and toys, and lower frequency of symbolic play compared to sighted peers. Children who are blind prefer musical toys, noisemaking objects, household items, and natural objects (e.g., stones); while sighted children prefer construction toys, picture books, paints, play dough, crayons, and symbolic toys. With parents, children who are blind engage in cuddling, singing songs, and making noises; sighted children look at books, read stories, and play with puzzles and other construction and sorting games. Taken together, these studies indicate that visual impairment in children affects their early active exploration, inhibits their spontaneous imitation of others, and influences the nature of their play interactions (Brambring & Troster, 1992, 1994; O'Donnell & Livingston, 1991; Ross & Tobin, 1997).

Studies indicate that visual impairment in children affects their early active exploration, inhibits their spontaneous imitation of others, and influences the nature of their play interactions.

Research suggests that parents of young children who are blind speak to their children differently than parents of sighted children (Anderson, Dunlea, & Kekelis, 1993; Urwin, 1978). For example, Kekelis and Prinz (1996) found that blind preschoolers had fewer utterances than their mother's per turn while sighted children and their mothers had a similar number of utterances–fewer than two per turn. Mothers of young children with visual impairments were more likely to ask test questions–to test the child's knowledge of names, object functions, and characteristics of toys used in play; while mothers of sighted children tended to ask real questions about the child's feelings, or interpretations.

Vision loss also affects the child's language and communication. Erin (1990) reported that children with visual impairments may demonstrate a frequent use of questions and echolalia responses. Other observations of young children with visual impairments reveal that they tend to use physical contact rather than eye contact during interactions. These behaviors may not be appreciated by peers. Furthermore, preschoolers with visual impairments and sighted peers do not repair breakdowns in communication that occur (Kekelis, 1992).

There is no recent research on the development of infants or preschoolers who are deaf-blind. Available literature is composed of a few case studies (Murdoch, 1994), anecdotal reports (Freeman, 1985), and validation studies of intervention methods (Chen & Haney, 1999; SKI HI Institute, 1993).

Implications for Working with Families

In general, families in these studies of infants and young children with visual impairment in this country have been English-speaking with the majority of Anglo-European backgrounds (Chen, 1996; Dote-Kwan, Hughes, & Taylor, 1997; Ferrell, 1998; Fraiberg, 1977; Hatton et al., 1997; Kekelis & Prinz, 1996) and issues of cultural or linguistic diversity have not been examined. One

study has compared the effects of bilingualism to monolingualism on the development of concepts by older children from Spanish-speaking families (Milian, 1996). Some of the literature on young children with visual impairment is from Canada (Rogow, 1992, 1988), England (Sonksen, Levitt, & Kitsinger, 1984; Urwin, 1983), Sweden (Priesler & Palmer, 1989), Germany (Brambring & Troster, 1994), and Denmark (Nielsen, 1991).

Similarly, the literature on infants and young children who are deaf-blind has not addressed issues related to working with families of diverse linguistic and cultural backgrounds with one exception. *Project PLAI: Promoting learning through active interactions* (Chen, Alsop & Minor, 2000; Chen & Haney, 1999, Klein, Chen & Haney, 2000) developed, implemented, and evaluated an early communication curriculum for infants whose multiple disabilities included visual impairment and hearing loss with Spanish-speaking and English-speaking families of diverse socio-economic and educational backgrounds. This project is discussed in a subsequent section.

The literature on infants and young children who are deaf-blind has not addressed issues related to working with families of diverse linguistic and cultural backgrounds with one exception.

Current Intervention Strategies in Relation to the DEC Recommended Practices

Assessment

DEC recommended practices (1993) in assessment are appropriate for evaluating young children who are visually impaired with the emphasis on the need: (a) to use appropriate assessment materials, (b) to gather information from parents and other significant caregivers, (c) to conduct assessments on multiple occasions, and (d) to use several types of assessment scales. In addition, children who have low vision should receive a functional vision assessment conducted by a teacher certified in the area of visual impairment to determine the child's ability to use vision in everyday activities and modifications that are needed to support the child's participation (Chen & Dote-Kwan, 1998).

When assessing young children with visual impairment, service providers

CURRENT INTERVENTION STRATEGIES

should evaluate whether selected instruments and procedures are valid for these children. The majority of developmental tools, such as the *Bayley Scales of Infant Development* (1993) rely heavily on items related to visual development. Other instruments provide specific adaptations for children with visual impairment, for example, the *Batelle Developmental Inventory* (Newborg, Stock, Wnek, Guidubaldi, & Svinicki, 1984). However, adaptations for some items are not possible, such as, "identifies self in mirror;" while the validity of other adaptations is questionable, such as, "feeling the examiner's facial expressions and matching them to raised line drawings" (Friedman & Calvello, 1990). It is difficult to adapt or develop test items that are free from a visual perspective. Even tasks that require manipulation of objects are more difficult for children who are blind when they require knowledge of spatial concepts, such as pointing in the direction of a sound, or arranging objects in a certain order. Research with young children who are blind suggests that tasks that involve placing an object in the child's hand and requiring the child to manipulate it in some way seem to be free from a visual perspective (Brambring & Troster, 1994a). Thus assessment of children who are severely visually impaired requires alternative procedures to assessing sighted children.

When assessing young children with visual impairment, service providers should evaluate whether selected instruments and procedures are valid for these children.

When a child is visually impaired and has a hearing loss, assessment materials and procedures should include appropriate accommodations for both sensory impairments.

A few tools have been designed specifically for assessing the development of young children with visual impairments, for example, The *Reynell-Zinkin Scales* (Reynell, 1983) and the *Oregon Project for Visually Impaired and Blind Preschool Children* (Anderson, Boigon, & Davis, 1991). To identify objectives and plan interventions, *The Parents and Visually Impaired Infants (PAVII)* materials were developed for infants (birth to 36 months) with visual impairments and their families (Chen, Friedman & Calvello, 1990). These materials gather information about an infant through parent interview and observations.

Given the multiple learning needs of young children who are visually impaired, particularly when there are additional disabilities, an interdisciplinary approach to assessment is essential. When a child is visually impaired and has a hearing loss, assessment materials and procedures should include appropriate accommodations for both sensory impairments (Mar, 1995). The literature on assessing children who are deaf-blind has focused mainly on the development of communication as indicated by a number of tools, including *The Communication Matrix* (Rowland, 1990), *The Callier Azusa Scale(H) for Assessing Communicative Abilities* (Stillman, 1985), *Communication Placement*

Assessment Manual (Stremel-Campbell & Clark Guida, 1984), and the *Nonverbal Prelinguistic Communication: A Guide to Communication Levels in Prelinguistic Handicapped Children* (Otos, 1983).

In addition, two criterion-referenced developmental checklists have been developed specifically for planning instruction with young children who are deaf-blind. First, *The Callier Azusa (G)* was developed by Stillman (1978) to assess communication, cognition, hearing, vision, gross motor, fine motor, self help, and social development in young children who are deaf-blind (birth to 10 years).

Several years later, the *Assessment of Developmental Skills for Young Multihandicapped Sensory Impaired Children* (Morgan et al., 1989) was developed composed of milestones cross-referenced to existing curricula materials, such as, the *Oregon Project* (Anderson et al., 1986), *Help Activity Guide* (Furuno et. al, 1985) and *Deaf-Blind Infants and Children* (McGinnes & Treffrey, 1986). It assesses gross motor, fine motor, self-help, cognition, social-emotional, communication, vision, hearing, and tactile development in young children (birth to 6 years).

After children who are visually impaired are assessed using appropriate procedures, resulting reports should provide information on the influence of the child's disability on developmental areas and recommendations for promoting the child's development. For example, how has a lack of vision or limited vision influenced the child's development? How does the combination of visual impairment and other disabilities affect the child's learning and development? What alternative strategies has the child developed to interact with others and to participate in activities? What activity adaptations, environmental modifications, or personal supports are needed to promote the child's learning and participation in activities at home, school, and in the community?

Family Participation

The literature reports that families of young children who are visually impaired appreciate parent-to-parent support opportunities and collaborative relationships with service providers (Chen, Friedman, & Calvello, 1990; Chen & Haney, 1999; Fraiberg, 1977; Klein et al, 1988). Chen and Haney (1999) found that less educated families and those who did not speak English required more support from early intervention personnel to access the medical and educational services that their infants needed. Spanish-speaking families also appreciated having early interventionists who spoke their language and materials that were in Spanish. They identified having opportunities to meet other Spanish-speaking parents of infants with multiple disabilities as very helpful.

Resulting reports should provide information on the influence of the child's disability on developmental areas and recommendations for promoting the child's development.

CURRENT INTERVENTION STRATEGIES

A few authors have identified specific considerations for service providers whose values, priorities, language, and culture may differ from families in their program. For example, in traditional Navajo families, children are expected to learn by observing others. When a child is visually impaired and cannot learn through observation, the family will need assistance in using alternative strategies to teach their child (Dufort & Reed, 1995). As another example, Correa (1987) suggests that service providers working with traditional Hispanic families to increase the independence of a child who is visually impaired and to decrease the mother's "overprotectiveness," may conflict with the family's values regarding the mother's caretaking role. Furthermore, in traditional Hispanic families, the extended family and family system is a major support and these families may maintain a formal communication style with service providers.

In traditional Navajo families, children are expected to learn by observing others. When a child is visually impaired and cannot learn through observation, the family will need assistance in using alternative strategies to teach their child.

Families of children with visual impairments and additional disabilities have reported frustration in dealing with fragmented services from too many professionals, each focusing on one part of the child based on disability labels (Giangreco, et al, 1991). Family concerns include obtaining family support such as help in the home and financial assistance for adaptive equipment; educational resources for family members and children; recreational opportunities; and dealing with systems that focus on deficits rather than strengths of children and their families (Fredericks, 1993). It is likely that families who do not have a language in common with their service providers will be even more frustrated by the service delivery system.

Curriculum and Intervention Strategies

The extreme heterogeneity of these low incidence populations contributes to the paucity of studies on specific curriculum or intervention strategies with infants and young children who are visually impaired or who are deaf-blind. For example, there are very few studies on the effectiveness of interventions to promote a child's functional use of vision (Lueck, Dornbusch, & Hart, 1999), although vision training is a common intervention with children who have low vision. Furthermore, there is great variation in the qualifications of the primary service provider for these children and this influences the types of instructional techniques that are used (Chen, 1993a; Chen, 1999; Chen & Dote-Kwan, 1998; Fredricks & Baldwin, 1987; Michael & Paul, 1991). Depending on state certification requirements, community resources, and each child's learning needs, children who are visually impaired will most likely receive services from a teacher in the area of visual impairment. Although this is the ideal, this may not occur because

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of the severe shortage of teachers trained in visual impairments and early childhood special education (Dote-Kwan, Chen, & Hughes, in press). However, if the child has additional disabilities, the primary service provider is likely to be a teacher in the area of early intervention/early childhood special education or severe disabilities. If the child is visually impaired and has a hearing loss, then he or she may also receive services from a teacher certified in the deaf and hard of hearing area, or in the few states with such certification, from a teacher certified in the area of deafblindness.

Instructional strategies with very young children who are visually impaired or who have additional disabilities have not been examined in relationship to working with families of diverse linguistic and cultural backgrounds, with one exception. As mentioned previously, *Project PLAI: Promoting learning through active interactions* (Chen & Haney, 1999) developed, implemented, and evaluated an early communication curriculum with Spanish-speaking and English-speaking families of diverse socio-economic and educational backgrounds (Klein, Chen, & Haney, 2000). The curriculum was effective with both Spanish-speaking and English-speaking families because (a) early interventionists could communicate with families through a common language, (b) intervention strategies were based on family routines, and (c) materials for families were available both in English and Spanish.

Some educational practices with young children who are deaf-blind in this country (Huebner, Prickett, Welch & Joffee, 1995; MacFarland, 1995, Miles & Riggio, 1999) originate from programs in Canada (McInnes & Treffry, 1982); England (Freeman, 1985; Wyman, 1986); and the Netherlands (Jurgens, 1977). Some young children who are visually impaired including those who are deaf-blind are served in inclusive settings (Erwin, 1993; Erwin, 1996; Luiselli, Luiselli, DeCaluwe & Jacobs, 1995; Ford & Fredericks, 1995). These children require appropriate supports including peer-mediated training for using verbal descriptions, human guide techniques, tangible symbols, sign language, tactile signing, and support from interpreter/tutors. In general, these recommended instructional practices in serving young children with visual impairments (including those who are deaf-blind) have not been examined for their appropriateness with diverse ethnic, cultural or linguistic groups.

Integrated objectives incorporated within everyday routines are particularly important for young children who are visually impaired and those who have additional disabilities.

The philosophies, intervention practices, and research derived from both the areas of early childhood special education and severe disabilities have influenced instructional practices with young children who are visually impaired and have additional disabilities. Many authors stress the importance of partnerships with families, ecologically-based interventions, and the context of learning activities. Integrated objectives incorporated

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within everyday routines are particularly important for young children who are visually impaired and those who have additional disabilities (Appell, 1987; Chen, Friedman, & Calvello, 1990; Chen & Dote-Kwan, 1995; Chen & Dote-Kwan, 1998; Chen & Dote-Kwan, 1999; Chen & Haney, 1999; Downing, 1996; Ferrell, 1985; Walker & Kershman, 1981).

Skills that are considered appropriate for sighted children are not necessarily developmentally or functionally appropriate for children with significant visual impairment.

Developmentally-Appropriate Practice

The literature indicates that true implementation of developmentally-appropriate practice considers what is appropriate for the child's age, individual need, and family culture (Bredekamp & Copple, 1997; Ludlow & Berkeley, 1994; Phillips, 1994) and provides the learning experiences that each child needs (Kostelnik, 1992). When children are visually impaired, instructional practices should provide information through nonvisual means. Furthermore, skills that are considered appropriate for sighted children are not necessarily developmentally or functionally appropriate for children with significant visual impairment. For example, teachers have observed that children with significant visual impairment tend to use a whole rather than a pincer grasp to obtain a small object–because it is more functional. In a retrospective study with English-speaking families in the New York area, Ferrell and her colleagues (1990) found that the developmental sequence for infants who were visually impaired seemed to differ from that of sighted infants. Infants who were visually impaired were reported to have acquired certain milestones (walks up and down stairs with alternating feet, follows two-step directions, removes T-shirt independently, sings a song from memory, and toilet trained without diapers) earlier than the median age for sighted infants. Further, these infants who were visually impaired acquired gross motor skills (walking) at an earlier age than Fraiberg's sample (1977); perhaps because these areas were addressed by their early intervention programs. Most developmental milestones were achieved later by the group of children with multiple disabilities and visual impairments. Similarly, differences in the acquisition of developmental milestones by young children with visual impairment have been reported by a recent prospective study–Project PRISM (Ferrell, 1998).

With little or no vision, it is difficult for preschoolers to develop many early concepts without direct instruction.

Interventions to Promote Cognitive Skills

All young children learn best through active participation and real life experiences. However, these learning opportunities are even more critical when children are visually impaired. With little or no vision, it is difficult for preschoolers to develop many early

concepts without direct instruction (Chen & Dote-Kwan, 1999). Blindness or visual impairment limits a child's natural understanding of people, objects, activities, and the environment.

In Denmark, Nielsen (1991) designed the "Little Room" as a responsive physical environment to assist infants with visual impairments including those with additional disabilities to develop spatial relations, object permanence, and cause-effect relationships. The "Little Room" is a plexiglass structure with objects attached to the sides and top within the child's reach. A total of 20 infants (5-19 months) with visual impairments (9 had significant developmental delays) were observed under a frame on which objects were attached and in the "Little Room." The infants demonstrated different behaviors in the "Little Room" than under the frame with objects. In the "Little Room" they seemed to focus on their own vocalizations and actions on objects rather than being distracted by environmental sounds. They were more interested in handling objects that had variations in surfaces and textures (e.g. plastic handle and brush), and objects that were moderately different in tactile characteristics (e.g., keys and spoons) than objects with smooth surfaces.

The structure of the "Little Room" enabled infants to repeat action on objects because the objects were in a fixed position. Many teachers in the United States have introduced the "Little Room" to young children with visual impairments and other disabilities. However, the use of the "Little Room" is controversial because (a) it creates an artificial environment for skills that may not be easily generalized to real situations, (b) its use may be stigmatizing in a setting with nondisabled peers, (c) a child may be left in it without supervision, and (d) if used excessively, may supplant opportunities of social interactions (Dote-Kwan & Chen, 1995). On the other hand, observations of children's actions in the "Little Room" highlight the importance of contingent experiences for an infant with visual impairment to develop an understanding of cause-effect relationships.

When they have limited or no vision, children need opportunities to touch and manipulate objects, to have "hands on" experiences, and whenever possible, to learn from real objects rather than models (Chen & Dote-Kwan, 1999; Ferrell, 1985; Morgan, 1992). For example, models such as plastic fruit or wooden cars in the play area of a preschool are only meaningful for a child who is visually impaired if he or she has previously developed the concept of "banana" and "car" by eating the real fruit or exploring the family's car. So although such toys may be "developmentally-appropriate" materials in a preschool, they would not be "individually-appropriate" for some young children with visual impairment (Chen, 1993b).

An understanding of spatial relations and the meanings of words, such as "up/down," "in/out," "on/off," "in front of/behind," are usually understood through visual reference to one's own body. Children with visual impairment require

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specific learning opportunities to develop these concepts related to position, location, and distance from themselves and as related to objects in the environment (Morgan, 1992). Concepts also include the physical characteristics of objects–size, color, shape, and tactile qualities. Children with visual impairment need many opportunities to handle and play with everyday objects (such as spoons, cups, food, and clothing) that provide experiences with these characteristics. Similarly, older preschoolers need structured opportunities to develop concepts related to time, distance, amount, and weight (Anthony, 1993). Without direct instruction, children with severe visual impairment may not develop an accurate understanding of environmental concepts related to indoor settings (such as walls, ceilings, stairs, windows, and doors), outdoor areas (such as streets, sidewalks, driveways, corners, curbs, dirt, grass, and asphalt), and types of transport (such as cars, busses, airplanes, boats, trikes, and skis). Promoting opportunities for concept development is typically a focus of teachers certified in the area of visual impairments and of orientation and mobility specialists.

Without direct instruction, children with severe visual impairment may not develop an accurate understanding of environmental concepts related to indoor settings (such as walls, ceilings, stairs, windows, and doors), outdoor areas (such as streets, sidewalks, driveways, corners, curbs, dirt, grass, and asphalt), and types of transport (such as cars, busses, airplanes, boats, trikes, and skis).

Interventions to Promote Communication Skills

Children who are blind or visually impaired develop language in a similar manner as sighted children. However, vision loss influences the manner in which they use language and communicate with others (Anderson, Dunlea, & Kekelis, 1984). Understanding pronouns is difficult for these children if they cannot see the person who is talking, what is being talked about, or the person who is being addressed. Children who are blind may be five years old before they accomplish the correct use of pronouns (Segal, 1993). Echolalia is also common in many young children who are visually impaired (Dunlea, 1989). When children are visually impaired and have additional disabilities, they need direct instruction to develop language skills (Evans & Johnson, 1988).

Communication has long been recognized as the primary intervention need for young children who are deaf-blind (Chen, 1995; Huebner, Kirchner & Prickett, 1995; Stillman, 1993; van Dijk, 1966;1967; Writer, 1987). For the majority of these young children with other severe disabilities, an emphasis must be placed on presymbolic communicative behaviors and the pragmatics of communication (Downing & Siegel-Causey, 1988; Rowland & Schweigert, 1989; Seigel-Causey & Downing, 1987; Tedder, Warden, & Sikka, 1993). Interpreting and responding to nonverbal behaviors as if they have communicative intent has been identified as an effective intervention

strategy with young children who are deaf-blind (Chen & Haney, 1995; Chen & Haney, 1999; Downing & Siegel-Causey, 1988; Rowland & Schweigert, 1989; Seigel-Causey & Downing, 1987; Tedder, Warden, & Sikka, 1993; van Dijk, 1966; 1967). Movement-based communication involving gestures, actions on objects, and other body movements has been used widely with these children as well (Stillman, 1993; Writer, 1987). Gestures, objects, and picture systems (Huebner, Prickett, Welch, Joffee, 1995; van Dijk, 1986; Rowland & Schweigert, 1989) have been used with children who need a tangible symbol system. Symbolic communication through sign language based on visual-spatial properties has to be modified for children who are deaf-blind. Depending on their functional vision, these children may require one-to-one tactile interpreting or close-proximity signing. Moreover, educational interpreters may be needed for children who are deaf-blind who are being educated with young children who are not disabled (Prickett, 1995).

Interventions to Promote Social Skills and Emotional Development

Studies of caregiver interaction with infants who are visually impaired or deaf-blind highlight the need for early intervention to support this early relationship, and to assist caregivers in identifying and interpreting the infant's behaviors as communicative (Chen, 1996, Fraiberg, 1977). Other studies have identified the role of adults in promoting the interactions with peers of preschoolers with visual impairments. Workman (1986) reported that adult descriptions of the social environment and verbal prompts encouraged interactions between preschoolers with visual impairments and sighted peers. Skellenger and Hill (1994) found that with 5- to 7-year-olds, identifying the child's interests in play, adult modeling, and participation in play, supported young children who were blind in developing play skills. Strategies included choosing similar activities and materials and making comments, i.e., " I wonder if I can put this baby to bed?", offering specific suggestions, i.e., "Will you help me put these people in the house?", and using hand-over-hand or hand-under-hand modeling, for example, "Let's bathe the baby together." Other strategies to promote play skills include selecting toys for children with visual impairment based on tactile rather than visual characteristics, using real objects, and facilitating interaction with one peer and then gradually increasing the number of children in a play situation (Rettig, 1994).

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Interventions to Promote Adaptive Behavior Skills

Because visual impairment severely limits a child's ability to learn by imitation, many early childhood programs emphasize the development of independence in self-care skills for preschoolers who are visually impaired (Brody & Webber, 1994; Ferrell, 1985; Morgan, 1992). Children who are blind or severely visually impaired need to use specific compensatory strategies to engage in many daily living activities, such as being organized, using tactile discrimination, and relying on spatial memory to identify objects, make choices, and perform tasks independently. For example, consider how a five-year-old boy who is blind learns how to dress himself, brush his teeth, and feed himself. These children do not acquire these strategies without direct instruction and opportunities to participate in self-care activities. However, a service provider's emphasis on the child's development of independent self-care skills may conflict with the family's value of caring for their children.

Research suggests that early intervention services have promoted an earlier age of acquisition for locomotion skills in infants with visual impairments than reported previously.

Interventions to Promote Motor Skills

Young children with visual impairments tend to have low tone and delays in motor development, given the absence of visual stimuli to motivate movement and exploration (Brown & Bour, 1987). Infants who are blind tend to take longer to develop crawling skills that infants who are sighted (Maida & McClune, 1996). However, research (Ferrell et al., 1990) suggests that early intervention services have promoted an earlier age of acquisition for locomotion skills in infants with visual impairments than reported previously (Fraiberg, 1977). Orientation and mobility, that is, learning where one is in space and how to move safely and independently, is a primary area of instruction for young children who are visually impaired or deaf-blind (Anthony, 1992; 1993; Huebner, Kirchner, & Prickett, 1995). Orientation and mobility has also been identified by parents of young children who are deaf-blind as a primary intervention need for their children (Andrews, 1989). As with the acquisition of adaptive behavior skills, children who have severe visual impairments need specific interventions to promote the development of independent motor skills. However, a focus on independent movement in early childhood may not be a family's priority for their child.

Personnel Training

Nationally, there is a severe shortage of teachers certified in the area of visual impairments, and only 23 states have personnel preparation programs in visual impairments (American Foundation for the Blind, 1995; Council for Exceptional Children, 2000; Corn & Ferrell, 2000; Corn, Hatlen, Huebner, Ryan & Stiller, 1996; Head, 1989;

Huebner & Paige Strumwasser, 1987; Jones, 1991; Parsons, 1990; Stolarski & Erwin, 1991). Furthermore, most of these teacher training programs provide little if any cousework in the areas of early intervention/early childhood special education, or severe and multiple disabilities (Dote-Kwan, Chen, & Hughes, in press; Erin, 1986; Erin, Daugherty, Dignan, & Parson, 1990; Huebner & Paige Strumwasser, 1987; Seitz, 1994).

There is an even more critical shortage of personnel trained to meet the specific learning needs of young children who are deaf-blind (McLetchie & MacFarland, 1995; McCletchie & Riggio, 1997; Zambone & Huebner, 1992). The majority of teachers of children who have both vision and hearing losses have not received training in specific strategies to address the communication and sensory needs of these children (Chen & Haney, 1995; Huebner, Prickett, Welch, & Joffee, 1995; Michael & Paul, 1991; Stillman, 1993; Tedder, Warder & Sikka, 1993). Furthermore, the heterogeneity of the population contributes to the complexity of educational needs and a variety of service providers working with children who are deaf-blind (Bullis & Otos, 1988; Zambone & Huebner, 1992). However, specific competencies in the areas of developing concepts, communication, orientation and mobility, and use of sensory information are needed by teachers who work with these children (McLetchie & Riggio, 1997). Training is also needed for the interpreter-tutor or intervener, a paraprofessional support person to facilitate's the child's access to the social and learning environment (Ford & Fredericks, 1995; McGinnes & Treffry, 1982; SKI-HI Institute, 1993).

There is an even more critical shortage of personnel trained to meet the specific learning needs of young children who are deaf-blind.

Considerations for Working with Culturally and Linguistically Diverse Families

This review of the literature on research and instruction of young children with visual impairment (including those with other disabilities) suggests the following considerations for working with families of diverse cultural and linguistic backgrounds:

1. Service providers (such as ophthalmologists, optometrists, audiologists, nurses, early interventionists, and special education teachers) should be aware of the need for infants to receive vision and audiological evaluations and should become knowledgeable about

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Assessments should be valid for the child being assessed and should include a family interview and observations of children in familiar situations.

procedures that are appropriate for infants and for infants with other disabilities. Early and accurate identification of young children with visual impairment, particularly if they have other disabilities, depends on their families' access to services for early screening, referral, and diagnosis. Even when a vision and/or hearing impairment is identified, an infant may not receive appropriate early intervention services related to the sensory impairments in a timely fashion.

Gathering information from families from diverse cultural and linguistic backgrounds may require additional time, carefully worded questions, recognition that the families' home routines may differ from those of mainstream families, and the use of trained interpreters.

How quickly an infant receives these services often depends on the resources of the local medical and educational systems and the ability of the family to advocate for services within these systems (Chen, 1998). Many families may not understand how to access current medical and early intervention systems and may be confused by diagnostic labels and related terminology (Chen, Brekken & Chan, 1997; Chen, Chan, Brekken, & Valverde, 2000). Service providers should explain diagnoses and terminology related to the child's diagnosis in ways that are understandable to families, for example, discussing the difference between "legally blind" and "totally blind." Additional explanation may be needed for non-English-speaking families. Translation of the terms "blind" or "deaf-blind" from English to other languages may be difficult, given the common perception that "blind" means cannot see anything and "deaf" means cannot hear any sound. Similarly, service providers may need to explain the medical and educational systems of this country. Families who are not familiar with our medical or educational system may not understand the purpose of appointments and meetings. Further, there are many other issues related to a family's socioeconomic status that will influence their ability to access services.

2. Assessments should be valid for the child being assessed and should include a family interview and observations of children in familiar situations. Gathering information from families from diverse cultural and linguistic backgrounds may require additional time, carefully worded questions, recognition that the families' home routines may differ from those of mainstream families, and the use of trained interpreters. Family priorities and goals for the child may vary from those of the early intervention or early childhood special education professionals. For example, families may question the advisability of orientation and mobility goals and be concerned about their child's safety.

3. Young children with visual impairment need active interaction with

objects, people, and activities to support their interest in activities, to develop an understanding of the environment, and to develop concepts. Whenever possible, experiences with real objects should support learning; for example, a real orange has many defining characteristics compared to a plastic orange. It is essential that young children learn where things belong and help set up and clean up activities so that things do not just appear and disappear (Lueck, Chen & Kekelis, 1997). A sighted child can see the adult getting the cookies out of the cupboard and putting them on the table. However, without verbal explanation and opportunity to participate, the child who is visually impaired will have no idea how the cookies got on the table. Allowing the child to participate actively in everyday activities and providing verbal descriptions of ongoing events may not fit naturally into typical family practices. Further, service providers should use objects and toys in home visits that respect the family's culture and lifestyle. For example, it is disrespectful to introduce expensive toys that the family cannot afford or Anglo-European dolls in an African-American home.

4. Most early childhood programs expect children to develop independence in daily routines such as feeding, toileting, and sleeping (Gonzalez-Mena, 1993); and the development of autonomy and independence is typically a primary focus of preschool programs for young children with visual impairments. However, this emphasis on self help skills, self feeding, dressing, and toileting in early childhood special education programs may conflict with the family's priorities (Chen & Dote-Kwan, 1999; Klein & Chen, in press). Similarly, an emphasis on orientation and mobility skills may not fit the family's values of interdependence and caring for the child. For example, in traditional Latino and Middle Eastern families, preschoolers may retain baby bottles, be dressed, and fed by older family members (Sharifzadeh, 1998; Zuniga, 1998). In contrast, self reliance and autonomy is valued in traditional Native American families and young children may have more household responsibilities than Euro-American children (Dufort & Reed, 1995; Joe & Malach, 1998). These examples of differences between the values of families and those of early childhood special education programs underscore the need for service providers to gather information regarding the family's priorities in order to understand the family's perspectives, to evaluate and discuss the rationale for their professional recommendations regarding the child's learning needs, and to collaborate with families in promoting their children's development. Most importantly, service providers should be nonjudgmental, willing to learn about the family's concerns, and acknowledge the family's love for their child.

Instruction to meet the child's communication needs should also be developed with consideration of the family's language and culture.

5. Instruction to meet the child's communication needs should also be developed with consideration of the family's

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language and culture. For example, should a child who is deaf-blind in an oral program at school learn English although he or she will be exposed to a different language spoken at home? If the child is learning American Sign Language, teachers should be aware that some hand shapes are offensive gestures in some cultures. What supports will be provided to assist families of diverse linguistic backgrounds in developing sign language skills?

There is not only a critical need to train personnel to meet the educational needs of these young children with visual impairment, but also to train all personnel to serve all families in a culturally responsive manner (Lynch & Hanson, 1998; Rivers, 2000) and to recruit and train personnel who represent the diverse cultural and linguistic backgrounds of children being served.

6. While it is important for teachers to have developmentally-appropriate expectations for all children, they should also understand the need for necessary modifications when a child has a visual impairment. For example, activities involving identifying pictures, coloring with crayons, and other visual activities will need to be adapted through using objects which provide tactile information. Similarly, if a child has low vision, the use of high contrast backgrounds will enable the child to use his or her vision more effectively. Typically, preschool programs value messy activities and creative play or "dress up" opportunities as being particularly important for young children with visual impairment to develop concepts and social skills. However, service providers should share the purpose of arts and crafts and imaginative play activities, discuss concerns that the family expresses, and identify agreements. For example, some families may not want their children to engage in messy play. Others may observe very traditional roles for men and women and would disapprove of their sons playing with dolls, dressing up in "female" attire or engaging in other activities that are considered feminine. Similarly, families may have different expectations of their children based on gender which are very different from mainstream expectations, for example, girls are not permitted to wear pants. Other families may have different expectations of their children with visual impairments than of their children who are sighted (Chen & Dote-Kwan, 1999).

Early childhood special education services for young children who are visually impaired should identify ways for serving families in a culturally responsive manner. For example, service providers need to explain diagnoses, interventions, procedures for maintaining corrective lenses, hearing aids, and other equipment in ways that are understandable for the family. For their part, service providers need to understand family perspectives and goals for their children who are visually impaired. Differences in language and communication styles require sensitive discussion with these families. Thus, there is not only a critical need to train personnel to meet the educational needs of these

young children with visual impairment, but also to train all personnel to serve all families in a culturally responsive manner (Lynch & Hanson, 1998; Rivers, 2000) and to recruit and train personnel who represent the diverse cultural and linguistic backgrounds of children being served.

Guiding Questions for Creating Culturally Responsive Programs

1. Have strategies have been used or recommended to facilitate child find activities in diverse linguistic communities?

2. Have strategies have been used or recommended to explain diagnosis, assessment and intervention terminology to families who do not speak English?

3. Have strategies been used or recommended to gather information about the family's priorities for the child who is visually impaired or deaf-blind?

4. What strategies have been used or recommended to balance the family's priorities for the child with the goals of service providers?

5. Does the program or material recommend use of interpreters or bilingual/bicultural staff in working with families who do not speak English?

6. Have strategies been used or recommended to recruit, train, and retain service providers from diverse cultural and linguistic backgrounds?

7. What strategies have been used to assist families in promoting the development of their young child with visual impairment?

Specific strategies for training personnel to work with families of diverse cultures, for working with interpreters, and other issues raised in this technical report may be located in the resources identified by CLAS and reviewed on the project website.

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Summary

Correa (1987) discusses critical issues regarding disability and cultural differences, and suggests effective strategies when teachers work with Hispanic families who have children with visual impairments. To increase the effectiveness of intervention, teachers must understand different customs and values of Hispanic families, such as persisting in using Spanish as their native language, having strong religious preference for Roman Catholicism, and maintaining male-dominated family traditions. In addition, teachers can learn some commonly used words and phrases to decrease the language barrier. Once teachers of children with visual impairments are sensitive to the cultural differences, appropriate adaptations and strategies can be employed in planning the intervention.

This article provides the specifics of Hispanic culture to increase teachers' sensitivity when they work with Hispanic families having children with visual impairments. Particularly, teachers who are not familiar with Hispanic culture can understand the cultural differences and further apply practical strategies to meet these families' needs.

ANNOTATED BIBLIOGRAPHIES

Deitz, S. J., & Ferrel, K. A. (1993). Early services for young children with visual impairment: From diagnosis to comprehensive services. Infants and Young Children, 6(1), 68-76.

Summary

Deitz and Ferrel (1993) provide information on visual impairments of young children, including the prevalence and incidence of infants and young children with visual impairments; and common etiology, diagnosis, interpretation of acuity scores, and functional vision. In order to optimize a child's functional vision, Deitz and Ferrel state that every child has different use of his/her vision for mobility in familiar and unfamiliar settings and in different illumination, positioning, contrast or enlargement conditions, as well as different visual skills. Thus visual stimulation should be conducted in a child's various environments.

From the review of research on the influence of visual impairment on child development, Deitz and Ferrel (1993) report that children with visual impairment have been identified to have delays in motor and locomotor development (e.g., walking, raising self to sitting, pulling to stand, crawling); language development (e.g., speaking two-word utterances, two-word sentences); and cognitive development (e.g., object concept, object permanence). In order to foster the development of children with visual impairment based on the impact of visual impairment on child development, Deitz and Ferrel suggest that early intervention for young children with visual impairment include increasing skills in other senses; skills in body concepts and awareness; movement and locomotion; and planned, active exploration of the environment. In addition, they note that because most children with visual impairment have self-stimulating behaviors, intervention in these behaviors may help children develop social interactions. They also provide useful resources for professionals working with young children with visual impairment.

Michael, M. G. & Paul, P. V. (1991). Early Intervention for Infants with Deaf-Blindness. Exceptional Children, 57(3), 200-210.

Summary

Michael and Paul (1991) describe the effects that definitions of deaf-blindness bring to programs for infants with dual sensory impairments and to preservice professional training. According to the functional interpretation, many of the individuals labeled deaf-blind have residual sight and hearing, but they may not use these senses effectively due to lack of early training. The authors examine theories employed in current intervention practices and suggest a combination of environmental-learning theories and cognitive-developmental theories, using age-appropriate materials in natural settings.

Early intervention establishes educational and support services for children under age three by identifying them in terms of case finding, registries, and screening, and at the same time, prevents problems in cognitive, linguistic, and social-emotional development. Assessment in vision and audition identifies an infant's residual ability in learning, and subsequent intervention improves its function. An integrated sensory approach should be employed to increase the abilities of infants and children with dual sensory impairments in both mobility and communication. Because many of these young children are placed in a variety of program settings, preservice and inservice professionals should become competent in providing high-quality programming services to help them become more independent.

This article highlights the importance of early training for infants with deaf-blindness, and also clarifies some misconceptions. Preservice and inservice teachers can benefit from reading the theoretical framework of intervention theories. At the same time, using an integrated sensory approach not only increases the mobility and communication of infants with dual sensory impairments, but also enhances development of sensory modalities in other areas.

R Resources

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Learning, Play, and Toys

The Hadley School for the Blind

Summary

This home study course is designed to teach parents how to facilitate educational and therapeutic play for their children with visual impairments or multiple disabilities. The course consists of the following six lessons: "Why Play?" "The Value of Play," "The Development of Play," "Special Considerations," "The Logistics of Play," and "Toys." Each lesson includes a number of self-quizzes and an exam on the material covered; a final exam culminates the course. Appendices provide developmental sequences of play activities for children from newborns to preschoolers.

Bibliographic Information

The Hadley School for the Blind. Learning, Play, and Toys (1992). The Hadley School for the Blind: Winnetka, IL. (190 pages) Language: English, Spanish

Availability

May be ordered from:
The Hadley School for the Blind • 700 Elm Street • Winnetka, IL 60093 • (800) 323-4238 *phone*

Contact Hadley School for availability information.

Producer Information

Intended User Audience: The intended user audience of these manuals includes parents and family members of children who are blind or who have significant visual impairments. The level of previous experience with the topic is intended to be introductory/beginning. Parents complete the course in their homes. The manuals are not intended for any specific geographical area (see product dissemination).

Product Development: Staff members who are teachers of children with visual impairments and early childhood service delivery personnel at the Hadley School developed the material. The developers have European American backgrounds, but several families with Hispanic backgrounds reviewed the material during its development (for the English version). Avellino Yaguno, who is a full time translator based at Northwestern University in Evanston, IL, completed the Spanish language translation. If needed, more information about the translator may be obtained from David Buddle at the Hadley School.

Producer Information (cont.)

Product Evaluation: One family (with a South American background) field tested the material and provided comments prior to finalizing the English version of this material. There has been no formal evaluation or field testing.

Product Dissemination: Approximately 1,500 copies of the English version entitled Learning, Play, and Toys have been disseminated since it was originally published. Although the material has mostly been disseminated in the U.S. (Texas, Illinois, New York, Idaho, and Pennsylvania are examples of recent order addresses), there has been some international distribution, including India and England. Approximately 25 copies of the Spanish language version have been disseminated to Spanish-speaking families and others who have made requests.

Learning the Way: A Guide for the Home Visitor Working with Families on the Navajo Reservation

Molly Dufort
Linda Reed

Summary

This handbook provides guidance to early intervention personnel and home visitors working with young children with disabilities and their extended families who live on the Navajo Reservation. The text is particularly focused on child and adult interaction and includes information about cultural perspectives on disabilities, including Navajo parenting styles, family participation, communication styles, and planning the home intervention. A glossary is included as well as a listing of resources, references, and conferences.

Bibliographic Information

Molly Dufort, Linda Reed. Learning the Way: A Guide for the Home Visitor Working with Families on the Navajo Reservation (1995). Perkins School for the Blind: Watertown, MA. (27 pages). Language: English

Availability

May be ordered from:
Perkins School for the Blind • 175 North Beacon Street • Watertown, MA, 02172 • (617) 924-3434 *phone*

Producer Information

Intended User Audience: This booklet was written primarily for early intervention service delivery personnel and administrators of early intervention programs. The booklet is primarily designed to be used by early intervention personnel who are working with Navajo families in Arizona, New Mexico, Colorado, and Utah (the Four Corners States).

Product Development: The handbook was developed with the support of funding from the Conrad N. Hilton Foundation. It was developed by early intervention service delivery team members from the Arizona State Schools for the Deaf and Blind (who had European American backgrounds) with assistance from Navajo families and support from Hilton/Perkins staff and a medical anthropologist with a background in working with Navajo families.

Product Evaluation: No formal handbook evaluation has occurred to date, although the Hilton/Perkins Project may have plans to do so in the future.

Producer Information (cont.)

Product Dissemination: The handbook has been distributed to federally funded deaf-blind projects in the United States (one per state). Approximately 1,000 handbooks are in circulation to various early intervention programs, particularly to early intervention programs serving the Navajo Nation as well as other Native American tribes.

Learning to Play: Common Concerns for the Visually Impaired Preschool Child

Susan L. Recchia

Summary

Designed for parents and professionals working with preschool children with visual impairments, this handbook discusses certain play situations that are difficult for children who do not see and provides suggestions for encouraging play. The first section discusses exploring toys and materials. It addresses why children with visual impairments often lack interest in different toys and suggests helping infants with visual impairments stay in touch with their toys by fastening them to cribs or hanging them overhead within reach. This section emphasizes the need for parents to provide feedback about play activities, to describe toys as the infant feels them, and to introduce new textures as early as possible.

The next section focuses on the difficulties children with visual impairments have in making transitions from one activity to another. Suggestions for easing transitions are provided and include preparing children before the transition takes place and providing a transitional object of some kind. The final section addresses the problems children with visual impairments may have when playing with other children. Parents are urged to keep the first play experience short, set up situations with just one other child, and be available to interpret for both children until they become more comfortable on their own.

Bibliographic Information

Susan L. Recchia. Learning to Play: Common Concerns for the Visually Impaired Preschool Child (1987). Blind Children's Center: Los Angeles, CA. (11 pages).
Language: English

Availability

May be ordered from:
The Blind Children's Center • 4120 Marathon Street • P.O. Box 29159 •
Los Angeles, CA 90029 • (323) 664-2153 *phone* • (323) 665-3828 *fax* •
http://www.blindchildrenscenter.org/ *web*

Producer Information

Intended User Audience: The intended audience includes parents, family members, faculty trainers, and service delivery personnel in early intervention and early childhood special education.

Producer Information (cont.)

Product Development: An infant specialist at the Blind Children's Center developed this material.

Product Evaluation: At the present time, no formal evaluation has been completed on this material. Currently, there are no plans for evaluation.

Product Dissemination: At the present time 12,017 copies of this material have been disseminated across the United States as well as internationally.

Let's Eat: Feeding a Child with a Visual Impairment

Jill Brody
Lynn Webber

Summary
This guide is intended to help parents and caregivers of young children with visual impairments teach competent feeding skills. After an introduction, a section on stages in learning to eat discusses eating behaviors of infants and young children with visual impairments at various ages. Examples of some specific problems and solutions are included. The next section discusses issues that may contribute to delayed development of mature feeding skills. These include diminished visual acuity, misinterpretation of a child's cues, tactile defensiveness, lack of anticipation, repetitive movements, behavioral issues, related impairments, neuromuscular problems, arching, tongue thrust, and immature reflexes. Information on four organizational resources is provided.

Bibliographic Information
Jill Brody, Lynn Webber. Let's Eat: Feeding a Child with a Visual Impairment (1994). Blind Children's Center: Los Angeles, CA. (28 pages). Language: English, Spanish

Availability
May be ordered from:
The Blind Children's Center • 4120 Marathon Street • Los Angeles, CA, 90029 • (800) 222-3566 *phone* • (323) 665-3828 *fax*

Also available in video format.

Producer Information
Intended User Audience: The intended audience for the material includes parents and family members, as well as service delivery personnel in early intervention and early childhood special education.

Product Development: Faculty, trainers, and service delivery personnel were involved in developing this material. This group represented the disciplines of early intervention and early childhood special education. English and Spanish-speaking professionals, along with families from both cultures, worked on this material.

Product Evaluation: At the present time, no formal evaluation has been completed on this material. Currently, there are no plans for evaluation.

Producer Information (cont.)

Product Dissemination: At the present time, 7377 copies of the English version of this material, 1002 copies of the Spanish version, and 803 copies of the video have been disseminated throughout the United States as well as worldwide.

Move With Me: A Parents' Guide to Movement Development for Visually Impaired Babies

Doris Hug
Nancy Chernus-Mansfield
Dori Hayashi

Summary

This booklet presents suggestions for parents of children with visual impairments to promote their infant's motor development. It is pointed out that babies with serious visual loss often prefer their world to be constant and familiar and may resist change (including change in position). Therefore, it is important that a wide range of movement activities be introduced to infants with visual impairment to make them more comfortable with trying new positions. The first chapter presents suggestions for encouraging the infant to lie on its stomach (most babies with visual impairment are more comfortable on their backs). Information is also presented on the special psychomotor development of premature babies. Activities in the second chapter are geared toward strengthening the muscles in the front part of the body, making the baby more comfortable about moving from one position to another, and practicing motor skills already learned. The third chapter presents suggestions for encouraging the baby's ability to shift weight from side to side and to extend its arms. The booklet is illustrated with photographs of parents and children performing some of the suggested exercises.

Bibliographic Information

Doris Hug, Nancy Chernus-Mansfield, Dori Hayashi. Move With Me: A Parents' Guide to Movement Development for Visually Impaired Babies (1986). Blind Children's Center: Los Angeles, CA. (17 pages). Language: English, Spanish

Availability

May be ordered from:
The Blind Children's Center • 4120 Marathon Street • Los Angeles, CA 90029 • (800) 222-3566 *phone* • (323) 665-3828 *fax* • http://www.blindchildrenscenter.org/ *web*

Producer Information

Intended User Audience: The intended user audience is parents/family members and service delivery personnel in early intervention/early childhood special education and orientation/mobility.

Producer Information (cont.)

Product Development: Administrators and other professionals in the field of early intervention/early childhood special education developed this material. No additional information is provided about the Spanish translation of this material.

Product Evaluation: At the present time, no formal evaluation has been completed on this material. Currently, there are no plans for evaluation.

Product Dissemination: At the present time, 12,294 copies of the English version and 1,835 copies of the Spanish version of this material have been disseminated across the United States as well as internationally.

Reaching, Crawling, Walking...Let's Get Moving: Orientation and Mobility for Preschool Children

Susan S. Simmons
Sharon O'Mara Maida

Summary

This booklet examines Orientation and Mobility (O&M) and how it can influence the independence of a child with visual impairment or blindness. The booklet is divided into four sections—Reaching, Crawling, Walking, and Cane Use. In each section, terminology used by O&M specialists is explained, including "senses," "environment," "travel," and "space." The section on reaching notes the importance of stimulating the baby's interest in the toys and people in his or her environment. The section on crawling emphasizes the baby's use of all senses as he or she travels through the house exploring new environments and stresses the importance of encouraging the baby to do some things independently. The section on walking describes the developmental stages of the baby pulling himself up on furniture and cruising along walls and comments on the importance of arranging home furnishings for child safety. The section on cane use discusses pre-cane mobility devices such as push-toys and procedures for learning to use a white cane. Numerous black and white photographs illustrate the text.

Bibliographic Information

Susan S. Simmons, Sharon O'Mara Maida. Reaching, Crawling, Walking...Let's Get Moving: Orientation and Mobility for Preschool Children (1992). Blind Children's Center: Los Angeles, CA. (24 pages). Language: English

Availability

May be ordered from:
The Blind Children's Center • 4120 Marathon Street • Los Angeles, CA 90029 • (800) 222-3566 *phone* • (323) 665-3828 *fax* • http://www.blindchildrenscenter.org/ *web*

Producer Information

Intended User Audience: The intended user audience is parents, family members, and service delivery personnel in early intervention/early childhood special education.

Product Development: Administrators, faculty/trainers, and service delivery personnel developed this material. The authors represented the discipline of early intervention/early childhood special education and both are certified Orientation and Mobility specialists. Both authors are European American.

Producer Information (cont.)

Product Evaluation: No formal evaluation has been completed on this material. Currently, there are no plans for evaluation.

Product Dissemination: At the present time, 13,171 copies of this material have been disseminated across the United States as well as internationally.

Selecting a Program: A Guide for Parents of Infants and Preschoolers with Visual Impairments

Deborah Chen
Mary Ellen McCann

Summary

Designed for parents of infants and preschoolers with visual impairments, this booklet encourages parent involvement in all aspects of educational programming for these children and provides guidelines for selecting a suitable program. The first section examines the stresses involved in transitioning from one program to another. Parents are urged to be active members of the child's educational team by making observations, providing the team with an accurate picture of the child, identifying what the family thinks is important, keeping records, planning for meetings, and dealing effectively with professionals.

General and specific guidelines for selecting a program are presented and include reviewing program characteristics relating to social environment, physical environment, learning environment, and specific characteristics of infant programs, preschool programs, and kindergarten programs. Questions are also provided to help parents evaluate a program from their child's point of view, including questions regarding the learning environment, teacher competency, and transition issues. The booklet closes with tips for helping the child during the first few weeks of a new program.

Bibliographic Information

Deborah Chen, Mary Ellen McCann. Selecting a Program: A Guide for Parents of Infants and Preschoolers with Visual Impairments (1993). Blind Children's Center: Los Angeles, CA. (28 pages). Language: English, Spanish

Availability

May be ordered from:
The Blind Children's Center • 4120 Marathon Street • Los Angeles, CA 90029 • (800) 222-3566 *phone* • (323) 665-3828 *fax* • info@blindchildrenscenter.org *e-mail* • http://www.blindchildrenscenter.org/ *web*

Producer Information

Intended User Audience: This guide is intended for parents and family members of young children with visual impairments. This material is also intended for pre-service students, service delivery personnel, and administrators in the areas of early intervention/early childhood special education, social work, and visual impairments.

Producer Information (cont.)

Product Development: This material was developed by a group including faculty/trainers, parents/family members, service delivery personnel, and administrators in the areas of early intervention/early childhood special education, family therapy, psychology, and visual impairments. The individuals were English and Spanish-speaking. Information about the Spanish translation is available from Midge Horton, Executive Director of the Blind Children's Center.

Product Evaluation: At the present time, there are no plans for evaluation or field testing of this material.

Product Dissemination: At the present time, approximately 4000 copies have been disseminated (3200 of the English version, 700 of the Spanish version) within the United States and overseas.

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Starting Points: Instructional Practices for Young Children Whose Multiple Disabilities Include Visual Impairment

Deborah Chen
Jamie Dote-Kwan

Summary

This handbook provides basic information on the needs of young children (ages 3-8) whose multiple disabilities include visual impairments. Chapters address the following topics: (1) common disabilities associated with visual impairment, the primary educational needs of these children, and the complexity involved in teaching them; (2) the need for clearly defined program philosophies, goals and practices to promote meaningful learning opportunities, including meeting exceptional learning needs, involving the child as an active learner, and integrating objectives from various disciplines; (3) procedures to develop and to plan instruction that are meaningful to the child and important to the family; (4) selected instructional strategies such as task analysis, chaining and shaping, use of natural cues and instructional prompts, fading, and creating an environment that encourages active participation; (5) strategies for promoting communication with nonverbal children and those who have severe language difficulties; (6) specific adaptations and strategies for working on daily living skills; (7) roles and responsibilities of a behavior support team, orientation and mobility specialists, and an occupational therapist; (8) the development of an instructional program for a 4-year-old child with multiple disabilities, including visual impairment; and (9) strategies for facilitating communication between the special education and regular education teacher. A final chapter details a family's experience in parenting a little boy who is blind and has multiple medical needs. Each chapter contains references.

Bibliographic Information

Deborah Chen, Jamie Dote-Kwan. Starting Points: Instructional Practices for Young Children Whose Multiple Disabilities Include Visual Impairment (1995). Blind Children's Center: Los Angeles, CA. (157 pages). Language: English

Availability

May be ordered from:
The Blind Children's Center • 4120 Marathon Street • Los Angeles, CA, 90029 • (800) 222-3566 *phone* • (213) 665-3828 *fax* • info@blindchildrenscenter.org *e-mail* • http://www.blindchildrenscenter.org *web*

Producer Information

Intended User Audience: This handbook is intended for service delivery personnel as well as administrators, college faculty and preservice educators who work in early childhood/early intervention settings with children from 3-5 years (primarily) who have visual impairments and other disabilities. The level of experience is intended to be introductory and beginning. The intent is that the material will be used with preschoolers who have visual impairments and other disabilities in general. No specific cultural or linguistic group is otherwise targeted.

Product Development: The material was developed by personnel in the early childhood special education, occupational therapy, orientation and mobility and special education/visual impairment fields. The cultural backgrounds of the developers are Asian American, Euro-American, and Hispanic American. The material has not been translated into other languages.

Product Evaluation: The material has not been formally evaluated or field tested.

Product Dissemination: Approximately 1,610 copies of Starting Points have been distributed. Dissemination has been national as well as some international dissemination to English-speaking countries such as England, Australia, Canada, India, New Zealand and Switzerland.

Talk to Me: A Language Guide for Parents of Blind Children

Linda Kekelis
Nancy Chernus-Mansfield

Summary
This brochure, published in 1984 for parents of infants and young children with blindness, offers suggestions for building the child's language and social skills through talking to the child and interacting in a variety of ways. The importance is stressed of talking to the young infant, even though she doesn't respond with eye contact, and of learning to recognize the infant's efforts at communication. Other suggestions include avoiding the over-stimulation of constant television or radio, describing family activities to the child, helping the child to explore his environment, including the child in family activities, sharing in the child's experience of the world, helping the child become aware of her feelings, and asking the child many questions.

Bibliographic Information
Linda Kekelis, Nancy Chernus-Mansfield. Talk to Me: A Language Guide for Parents of Blind Children (1984). The Blind Children's Center: Los Angeles, CA. (12 pages). Language: English, Spanish

Availability
May be ordered from:
The Blind Children's Center • 4120 Marathon Street • Los Angeles, CA 90029 • (323) 664-2153 *phone* • (323) 665-3828 *fax* • info@blindchildrenscenter.org *e-mail* • http://www.blindchildrenscenter.org/ *web*

Producer Information
Intended User Audience: This book is intended primarily for parents. The authors worked in Los Angeles at a center with a very multicultural student population.

Product Development: The authors were employed at the Blind Children's Center at the time this material was developed. They had extensive experience in working with children who are blind or visually impaired. Information was primarily obtained from parents, although it was also supplemented by information from teachers and from observing the students themselves.

Producer Information (cont.)

Product Evaluation: This booklet did not undergo any formal evaluation process after it was published. Prior to publication, the Blind Children's Center distributed the booklets among parents and professionals in the community for scrutiny and feedback.

Product Dissemination: More than 800,000 copies of this booklet have been disseminated almost worldwide–throughout the United States, South America, Asia, Africa, and Australia. The publisher has a list of 13,000 organizations throughout the world to which it distributes materials.

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Talk to Me II: Common Concerns

Nancy Chernus-Mansfield
Dori Hayashi
Linda Kekelis

Summary
This booklet, for parents of children with blindness, discusses the importance of language for children who cannot see. It addresses three common concerns about the language of children with blindness, including repetitions, questions, and pronouns. Recommendations for parents include: (1) encourage early repetitions; (2) respond to the ideas and feelings in your child's repetitions; (3) reinforce language with hands-on experiences; (4) provide your child with a variety of experiences that enrich her understanding of the world around her; (5) talk often enough to let your child know you are nearby and are available to him; (5) describe new experiences before introducing them to children with blindness; (6) be direct and tell your child that he has asked enough questions; and (7) use games to teach pronouns.

Bibliographic Information
Nancy Chernus-Mansfield, Dori Hayashi, Linda Kekelis. Talk to Me II: Common Concerns (1986). The Blind Children's Center: Los Angeles, Ca. (15 pages). Language: English, Spanish

Availability
May be ordered from:
The Blind Children's Center • 4120 Marathon Street • Los Angeles, CA 90029 • (323) 664-2153 *phone* • (323) 665-3828 *fax* • info@blindchildrenscenter.org *e-mail* • http://www.blindchildrenscenter.org/ *web*

Producer Information
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Product Development: The authors were employed at the Blind Children's Center at the time this material was developed. They had extensive experience in working with children who were blind or visually impaired. Information was primarily obtained from parents, although it was also supplemented by information from teachers and from observing the students themselves.

Producer Information (cont.)

Product Evaluation: This booklet did not undergo any formal evaluation process after it was published. Prior to it being published, the Blind Children's Center distributed the booklets among parents and professionals in the community for scrutiny and feedback.

Product Dissemination: More than 200,000 copies of this booklet have been disseminated almost worldwide–throughout the United States, South America, Asia, Africa, and Australia. The publisher has a list of 13,000 organizations throughout the world to which it distributes materials.

About C·L·A·S

About the CLAS Early Childhood Research Institute

Early Childhood Research Institute on Culturally and Linguistically Appropriate Services

University of Illinois at Urbana-Champaign
The Council for Exceptional Children
University of Wisconsin-Milwaukee
ERIC Clearinghouse on Elementary and Early Childhood Education
ERIC Clearinghouse on Disabilities and Gifted Education

Overview

The Early Childhood Research Institute on Culturally and Linguistically Appropriate Services (CLAS) is a federally-funded collaborative effort of the University of Illinois at Urbana-Champaign, The Council for Exceptional Children, the University of Wisconsin-Milwaukee, the ERIC Clearinghouse on Elementary and Early Childhood Education, and the ERIC Clearinghouse on Disabilities and Gifted Education. The CLAS Institute is funded by the Office of Special Education Programs of the U.S. Department of Education.

The CLAS Institute identifies, evaluates, and promotes effective and appropriate early intervention practices and preschool practices that are sensitive and respectful to children and families from culturally and linguistically diverse backgrounds. CLAS has several basic assumptions which define and guide its work. CLAS' goals are outlined below, as well as some of the issues and concerns important to our work. Finally, a brief overview is included about the outcomes we anticipate accomplishing by the end of this project.

Assumptions

We adhere to the following fundamental beliefs in our research, training and dissemination activities:

Assumptions About Culture and Language:

1. Individuals and families are members of multiple cultures.
2. Cultures are multi-faceted and dynamic.
3. Multilingualism is an asset.
4. A solid foundation in one's primary language contributes to acquisition of a second language.
5. Cultural competence is a process entailing lifelong learning.

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ABOUT THE CLAS INSTITUTE

6. Many people have not had an equal voice, equal representation or equal access to health and education services. We recognize that institutional racism continues and will address issues of access and equity in the search, review, and dissemination of materials.
7. Beliefs and attitudes about culture and language shape outcomes; positive beliefs contribute to inclusiveness; negative beliefs undermine it.

Assumptions About the Work of the Institute:

1. Culturally and linguistically diverse practitioners and families will be involved in the work of the Institute as advisors, reviewers, and evaluators.
2. Materials will reflect the intersection of culture and language, disabilities and child development.
3. A range of strategies or approaches will be identified from which practitioners, families, and researchers can make an informed selection of practices or materials. In our dissemination of reviewed materials, we will not advise or prescribe solutions but will facilitate better questions regarding material selection.
4. Products will be "user amorous" and our evaluation will in part focus on the usability and impact of these products.

The work of the Institute is complex, challenging, and developmental in nature.

Goals

The CLAS Institute identifies, collects, reviews, catalogs, abstracts, and describes materials and practices developed for children and families from culturally and linguistically diverse backgrounds, and professionals who work with them. In the latter years of this five-year Institute, CLAS will identify gaps in existing materials and practices, prepare translations of a limited number of materials, and pilot-test a limited number of promising materials to ensure that effective early intervention practices are available to families and service providers who work with them. CLAS will:

1. Create a resource bank and catalog of validated culturally and linguistically appropriate materials, and of documented effective strategies, for early intervention and preschool services.
2. Conduct a review of materials by experts in the fields of early childhood education, early intervention/early childhood special education, and in multicultural education, considering issues not only of effectiveness but also of social, cultural, and linguistic acceptability to children and families from culturally and linguistically diverse backgrounds.
3. Evaluate and validate selected materials through field testing of the materials with culturally and linguistically diverse backgrounds.
4. Disseminate reviewed materials and practices that meet the dual criteria of (1) effectiveness and (2) cultural and linguistic appropriateness for all relevant stakeholders.

About the Author

Deborah Chen, Ph.D.
California State University-Northridge • 18111 Nordhoff Street • Northridge, CA 91330-8265

Deborah is a professor in the Department of Special Education at California State University, Northridge. She is a faculty Collaborator of the CLAS Early Childhood Research Institute. Her research and personnel preparation interests include early intervention with infants who have multiple disabilities, visual impairments and hearing loss; caregiver interactions with infants who have multiple disabilities; and effective strategies for working with families of diverse cultural and linguistic backgrounds. Her publications are focused on these areas. She has co-authored several training videos and manuals, including *Culturally Responsive And Family Focused Training* and *Conversations For Three: Communicating Through Interpreters*. Deborah has been invited to conduct short courses in Australia, Canada, the Netherlands, Thailand and Taiwan.

For more information on the CLAS Early Childhood Research Institute ...

Contact Amy Santos or Rob Corso (Project Coordinators) or Ron Banks (Information Specialist):

Early Childhood Research Institute on
Culturally and Linguistically Appropriate Services
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51 Gerty Drive
Champaign, Illinois 61820-7498

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http://clas.uiuc.edu/ *web site*
clas@ericps.crc.uiuc.edu *e-mail*

CLAS Technical Report Topics:

Child Assessment

Child Find

Cross-Cultural Considerations
- CLAS Mission
- Cross-Cultural Communication
- Cross-Cultural Conceptions of Child-Rearing
- Cultural Definitions and Issues
- View of Disability

Deaf Parents and Their Hearing Children

Family Information Gathering

Family Support Services

Helping Relationships and Service Utilization

Motor Skills Interventions

Parent-Infant Interaction

Personnel Preparation

Second-Language Acquisition

Transition

Visual Impairment

Working with Interpreters

IDEAs that Work

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